

PTO/SB/08A (08-03)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substituted for PTO 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

**Complete if Known**

Application Number	10/726,737
Filing Date	9 April 2003
First Named Inventor	Igor K. Kotliar
Art Unit	3752
Examiner Name	Granay, Steven
Attorney Docket Number	IKK-19

Sheet 1 of 6

**U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
SG	A1	4,896,514	Jan. 30, 1990	Sugiyama et al.
	A2	5,063,753	Nov. 12, 1991	Woodruff
	A3	5,388,413	Feb. 14, 1995	Major et al.
	A4	5,472,480	Dec. 5, 1995	Barbe
	A5	5,649,995	Jul. 22, 1997	Gast, Jr.
	A6	5,799,495	Sept. 1, 1998	Gast Jr., et al.
	A7	5,799,652	Sept. 1998	Kotliar
	A8	5,921,091	Jul. 13, 1999	Foss et al.
	A9	6,012,533	Jan. 11, 2000	Cramer
	A10	3,948,626	Apr. 6, 1976	Bragg
	A11	4,378,920	Apr. 5, 1983	Runnels et al.
	A12	4,556,180	Dec. 3, 1985	Manatt
	A13	4,681,602	Jul. 21, 1987	Glenn et al.
	A14	5,273,344	Dec. 28, 1993	Volkwein, et al.
	A15	5,308,382	May 3, 1994	Prasad
	A16	5,730,780	Mar. 24, 1998	Booth, III
	A17	6,547,188	Apr. 15, 2003	Schmutz, et al.
	A18	6,604,558	Aug. 12, 2003	Sauer
	A19	6,634,598	Oct. 21, 2003	Susko
	A20	6,729,359	May 4, 2004	Jones
	A21	6,739,359	May 25, 2004	Jones, et al.
	A22	6,739,400	May 25, 2004	Lessi, et al.
	A23	5,220,799	June 22, 1993	Lievens et al.
	A24	6,112,822	Sept. 5, 2000	Robin et al.

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document Country <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
	B1				

Examiner Signature	DOCSNY1:1173176.1	Date Considered	3/20/06
-----------------------	-------------------	--------------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicants unique citation designation number (optional). <sup>2</sup>See Kinds of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/726,737
				Filing Date	
				First Named Inventor	
				Art Unit	
Examiner Name					
Sheet	2	of	6	Attorney Docket Number	

	B2				
	B3				
	B4				
	B5				

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
SOB	C1	WILLIAM M. CAVAGE, Federal Aviation Administration, Atlantic City, NJ, and TIMOTHY BOWMAN, Boeing Phantom Works, St. Louis, MO, <u>Modeling In-flight Inert Gas Distribution in a 747 Center Wing Fuel Tank</u> , AIAAFDC32143b.pdf, 598 Kb, 13 pages, FAA White Papers	
SOB	C2	WILLIAM M. CAVAGE, Fire Safety Branch, Federal Aviation Administration, William J. Hughes Technical Center, Atlantic City International Airport, NJ, <u>Modeling of In-flight Fuel Tank Inerting for FAA OBIGGS Research</u> , 255 Kb, 11 pages, FAA White Papers	
SOB	C3	WILLIAM M. CAVAGE and ROBERT MORRISON, Fire Safety Branch, Federal Aviation Administration, William J. Hughes Technical Center, Atlantic City Int'l Airport, NJ, <u>Development and Testing of the FAA Simplified Fuel Tank Inerting System</u> , Cavage-FAAOBIGGSDevelop&Test, 530 Kb, 11 pages, FAA White Papers	
SOB	C4	STEVEN M. SUMMER, <u>Limiting Oxygen Concentration Required to Inert Jet Fuel Vapors Existing at Reduced Fuel Tank Pressures</u> , August 2003, DOT/FAA/AR-TN02/79, 1.8 Mb, 32 pages, FAA White Papers	
SOB	C5	WILLIAM M. CAVAGE, Fire Safety Branch, Federal Aviation Administration, AAR-422, Building 204, William J. Hughes Technical Center, Atlantic City International Airport, NJ, <u>Ground-Based Inerting of Commercial Transport Aircraft</u>	

Examiner Signature	DOCSNY1:1173176.1 	Date Considered	3/22/06
--------------------	---	-----------------	---------

<sup>1</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>2</sup>Applicants unique citation designation number (optional). <sup>3</sup>See Kinds of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>4</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>5</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>6</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>7</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is govern by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/726,737
				Filing Date	
				First Named Inventor	
				Art Unit	
				Examiner Name	
Sheet	3	of	6	Attorney Docket Number	

		<u>Fuel Tanks</u> , RTO_AVT-GBI Paper 761 Kb, 20 pages, FAA White Papers	
SOB	C6	WILLIAM M. CAVAGE, Fire Safety Section, Federal Aviation Administration, Atlantic City International Airport, NJ, <u>Modeling Inert Gas Distribution in Commercial Transport Aircraft Fuel Tanks</u> , AIAA Paper 2002-3032, Report 1300, 600 Kb, 8 pages, FAA White Papers	
SOB	C7	CHARLES C. GRAVES and DONALD W. BAHR, FAA-Propulsion Chemistry Division, <u>Basic Considerations in the Combustion of Hydrocarbon Fuels with Air</u> , NACA -1300, 24.04 Mb 26, 267 pages, FAA White Papers	
SOB	C8	WILLIAM M. CAVAGE, FAA, AAR-422, Fire Safety R&D, Copyright @ 2001 Society of Automotive Engineers, Inc., <u>Ground-Based Inerting of a Boeing 737 Center Wing Fuel Tank</u> , SAE-GBI, 281 Kb, 8 pages, FAA White Papers	
SOB	C9	MICHAEL BURNS, WILLIAM M. CAVAGE, Federal Aviation Administration, William J. Hughes Technical Center, Airport and Aircraft Safety, Research And Development Division, Atlantic City Int'l Airport, NJ 08405, <u>Ground and Flight Testing of a Boeing 737 Center Wing Fuel Tank Inerted With Nitrogen-Enriched Air</u> DOT/FAA/AR-01/63, 4.91 Mb, 34 pages, FAA White Papers	
SOB	C10	SAMUEL V. ZINN, JR., Nat'l Aviation Facilities Experimental Center, Atlantic City, NJ, <u>Inerted Fuel Tank Oxygen Concentration Requirements</u> , August 1971, FAA-RD-71-42 1.58 Mb, 23 pages, FAA White Papers	
SOB	C11	THOMAS L. REYNOLDS, ET AL., Boeing Commercial Airplanes Group, Seattle, Wash., <u>Onboard Inert Gas Generation System/Onboard Oxygen Gas Generation System</u> , May 2001, (OBIGGS/OBOGS) Study NASA/CR-2001-210903 7.75 Mb, 179 pages, FAA White Papers	

Examiner Signature	DOCSNY1:11731761 	Date Considered	3/20/04
--------------------	---	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicants unique citation designation number (optional). <sup>2</sup>See Kinds of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/726,737
				Filing Date	
				First Named Inventor	
				Art Unit	
Examiner Name					
Sheet	4	of	6	Attorney Docket Number	

SOB	C12	MICHAEL BURNS and WILLIAM M. CAVAGE, Federal Aviation Administration, FAA William J. Hughes Technical Center, Airport and Aircraft Safety, Research and Development Division, Atlantic City Int'l. Airport, NJ, <u>Inerting of a Vented Aircraft Fuel Tank Test Article With Nitrogen Enriched Air</u> , April 2001, 2.28 Mb., 29 pages, FAA White Papers	
SOB	C13	STEVEN M. SUMMER, <u>Cold Ambient Temperature Effects on Heated Fuel Tank Vapor Concentrations</u> , July 2000, DOT/FAA/AR-TN99-93, 395 Kb, 13 pages, FAA White Papers	
SOB	C14	WILLIAM M. CAVAGE, Airport and Aircraft Safety, Research and Development Division, FAA William J. Hughes Technical Center, Atlantic City International Airport, NJ, May 2000, <u>The Cost of Implementing Ground-Based Fuel Tank Inerting in the Commercial Fleet</u> , DOT/FAA/AR-00/19, 941 Kb, 60 pages, FAA White Papers	
SOB	C15	<u>A Benefit Analysis for Nitrogen Inerting of Aircraft Fuel Tanks Against Ground Fire Explosion</u> , December 1999, Final Report, DOT/FAA/AR-99/73 Office of Aviation Research, NTIS, Springfield, VA, 617 Kb, 117 pages	
SOB	C16	STEVEB M. SUMMERS, <u>Mass Loading Effects on Fuel Vapor Concentrations in an Aircraft Fuel Tank Ullage</u> , September 1999, DOT/FAA/AR-TN99/65, 934 Kb, 14 pages	
SOB	C17	<u>A Review of the Flammability Hazard of Jet A Fuel Vapor in Civil Transport Aircraft Tanks</u> , June 1998, Final Report, DOT/FAA/AR-98/26, 1.04 Mb, 62 pages, FAA White Papers	
SOB	C18	Aircraft Accident Report, <u>In-Flight Breakup Over the Atlantic Ocean Trans World Airlines Flight 800</u> , National Transportation Safety Board, NTSB/AAR-00/03 7.63	

Examiner Signature	DOCSNY1:1173176.1 	Date Considered	3/20/06
--------------------	---	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicants unique citation designation number (optional). <sup>2</sup>See Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is govern by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	101726,737
				Filing Date	
				First Named Inventor	
				Art Unit	
				Examiner Name	
Sheet	5	of	6	Attorney Docket Number	

		Mb, 341 pages	
SOB	C19	DANIEL R. BOWER, Ph.D., <u>Flight Test Group Chairman's Factual Report of Investigation</u> , July 17, 1996, NTSB/SA-516, 96 Kb, 24 pages, FAA White Papers	
SOB	C20	IVOR THOMAS, <u>FAA R&amp;D Efforts on Flammability</u> , August 14, 2002, 2.3 Mb, 27 pages, FAA White Papers	
SOB	C21	ALAN LEVIN, <u>Lower cost, higher risk helped alter FAA stance</u> , (McLean, VA: February 17, 2004. Pg. A.03), Copyright 2004 Gannett Company, Inc., USA Today	
SOB	C22	ALAN LEVIN, <u>FAA Suggests Airbus Modify Jets to Reduce Risks; Fuel Tanks Scrutinized</u> , (McLean VA: November 19, 2003 Pg. B.03), FINAL EDITION, Copyright 2003 Gannett Company, Inc., USA Today,	
SOB	C23	ALAN LEVIN, <u>Jets Must Be Altered, Device Created to Stop Fuel-Tank Explosions</u> , (McLean VA: February 17, 2004, Pg. A.01), FINAL EDITION, Copyright 2004 Gannett Company, Inc., USA Today	
SOB	C24	ALAN LEVIN, <u>FAA Device Could Guard Against Terrorism; Experts: Fuel-tank System Could Help Jets Survive Missile Attack</u> " (McLean Va: February 18, 2004, Pg. A.03) FINAL EDITION, Copyright 2003 Gannett Company, Inc., USA Today	
SOB	C25	DAVID EVANS, <u>Safety v. Entertainment</u> , (February 1, 2003) Avionics Magazine	
SOB	C26	PEG HASHEM, <u>Hamilton Sundstrand and Two Units of Cobham to Supply Nitrogen Generation System for Boeing 7E7</u> , Hamilton Sundstrand, A United Technologies Company, Windsor Locks, Conn., Corporate Press Release (July 1, 2004)	
SOB	C27	ANDREW J. PEACOCK, <u>Oxygen at High Altitude</u> , BMJ 1998; 317:1063-1066 (October 17)	

Examiner Signature	DOCSNY1:1173176.1 	Date Considered	3/20/06
--------------------	---	-----------------	---------

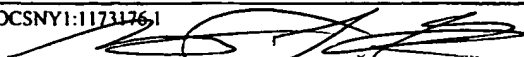
\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicants unique citation designation number (optional). <sup>2</sup>See Kinds of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is govern by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/726,737
				Filing Date	
				First Named Inventor	
				Art Unit	
				Examiner Name	
Sheet	6	of	6	Attorney Docket Number	

SSB	C28	PETER W. HOCHACHKA, <u>Mechanism and Evolution of Hypoxia-Tolerance in Humans</u> , The Journal of Experimental Biology 201, 1243-1254 (1998)	
SSB	C29	J. HARDY TYSON and JOHN F. BARNES, <u>The Effectiveness Of Ullage Nitrogen-Inerting Systems Against 30-mm High-Explosive Incendiary Projectiles</u> , Naval Weapons Center, China Lake, CA, Report JTCG/AS-90-T-004, (May 1991)	

Examiner Signature	DOCSNY1:11731761 	Date Considered	3/20/06
-----------------------	---	--------------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicants unique citation designation number (optional). <sup>2</sup>See Kinds of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is govern by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450